

Non-directional relation

Non-directional ties

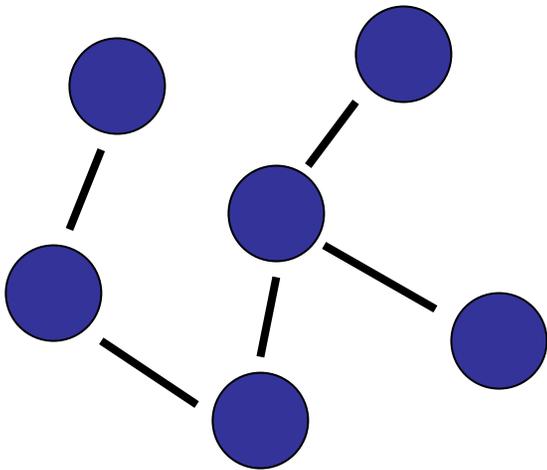
No origin or destination

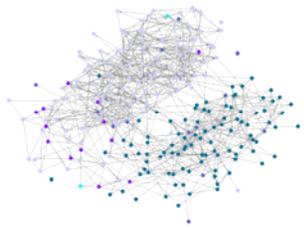
Are in proximity

Lives near

Has a conversation with

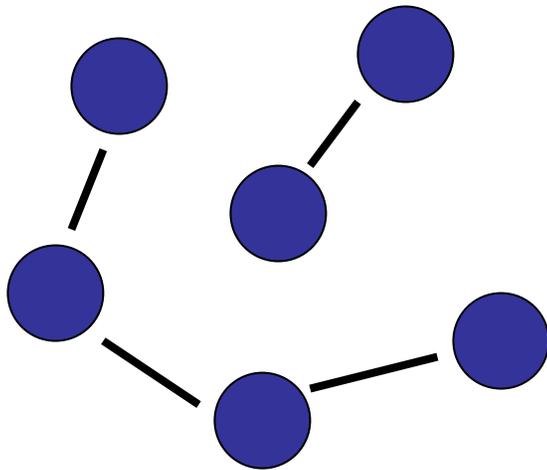
...





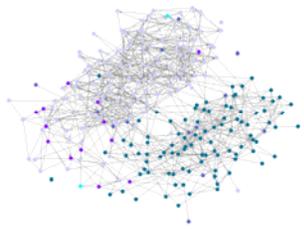
Dichotomous relation

On or off
Coded 0 or 1



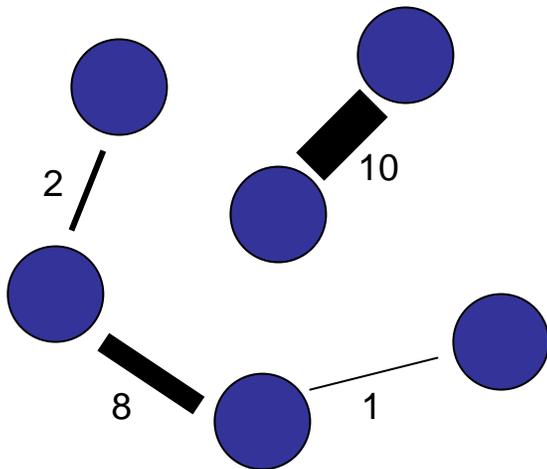
Is a friend of
Supervises the work of
Had a conversation with
...

May be directional or non-directional



Valued relation

Ties have a value or strength



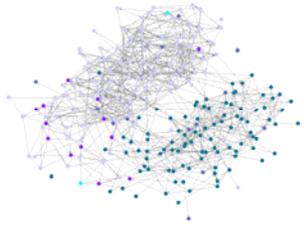
Minutes of conversation

Dollar amount loaned

Expressed strength of friendship

...

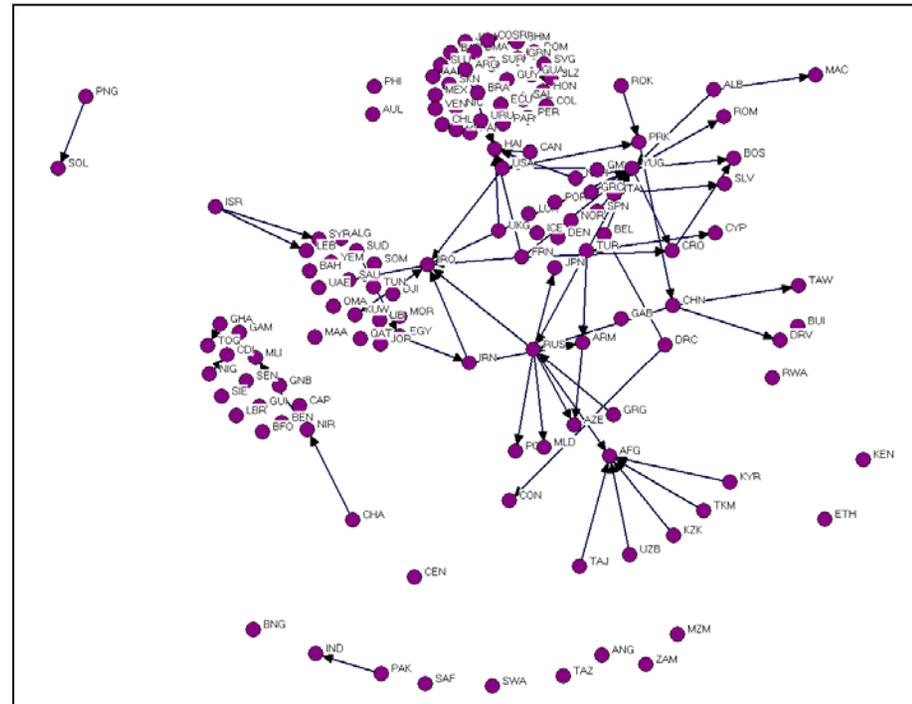
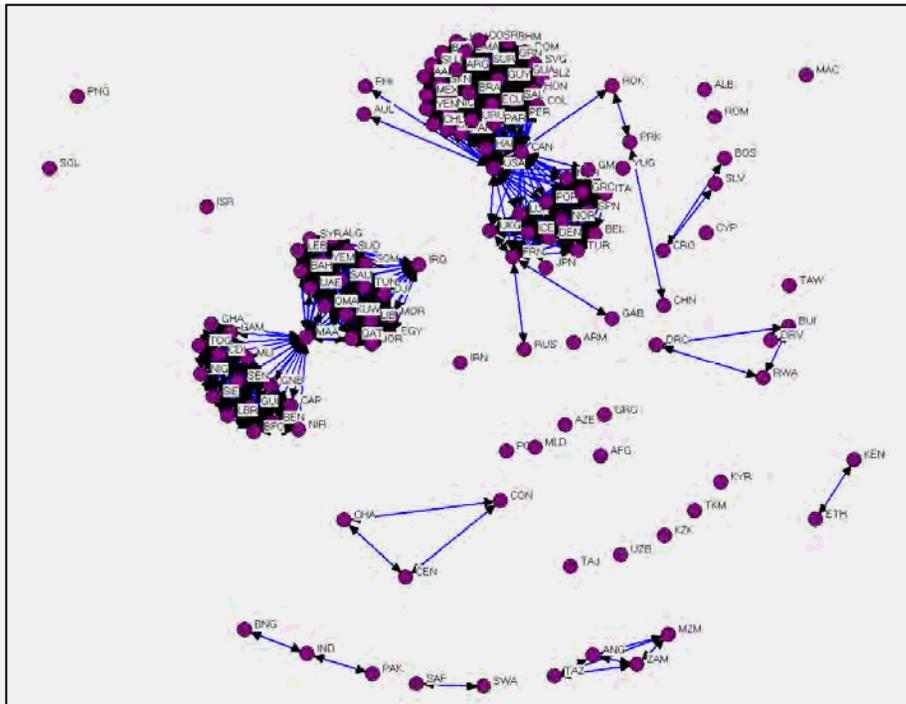
May be directional or non-directional



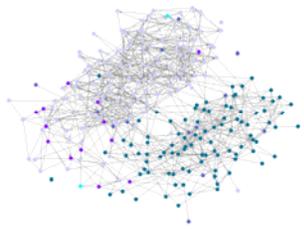
Multiple relations

Alliances between nations, 1993

Military disputes between nations, 1993



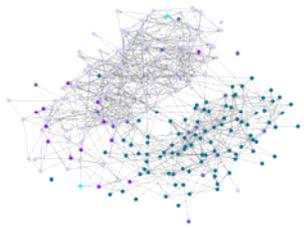
Drawn in Netdraw using
Node repulsion
Equal edge length



Relations and attributes

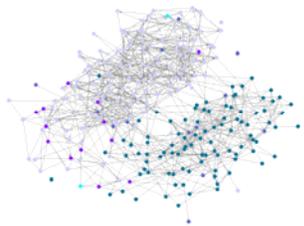
- Social selection
- Social influence

- Homophily: people associate with others who are similar to them



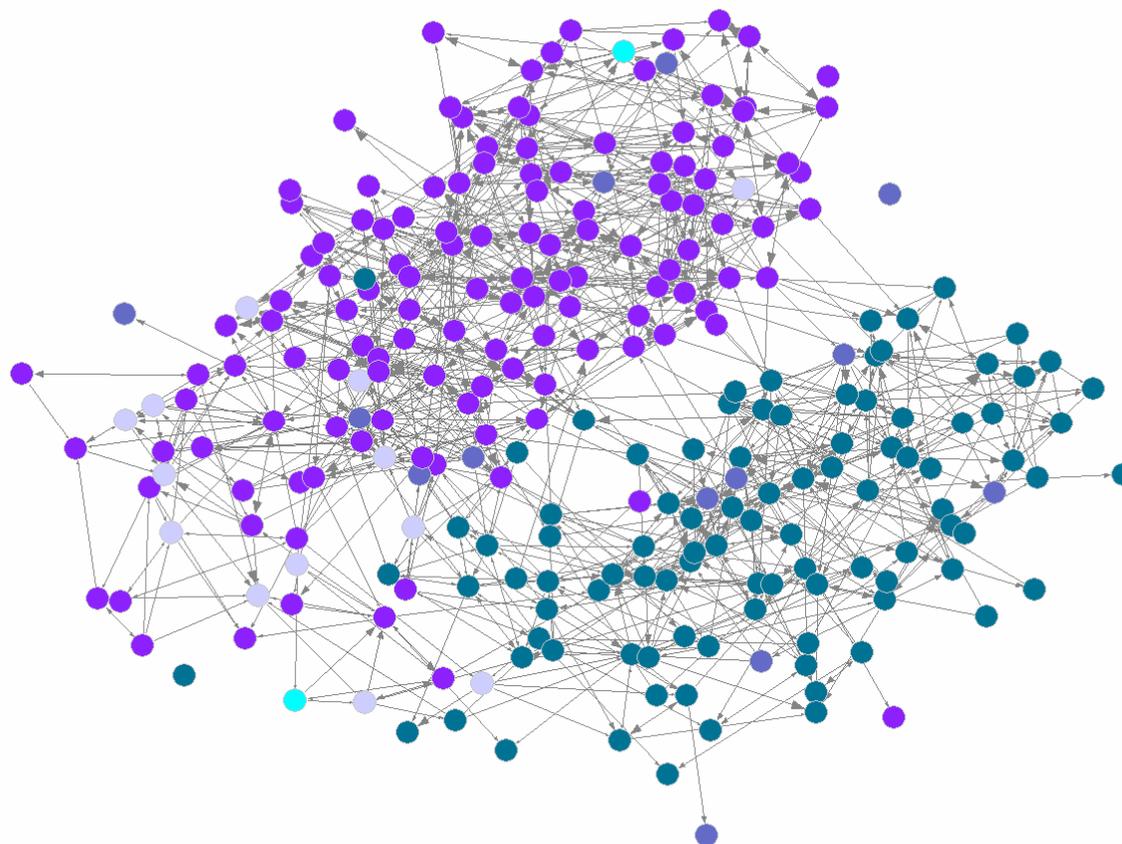
More than one set of actors

- Two or three sets of actors
 - Teachers and students
 - Manufacturers, distributors, and vendors
- Actors and “events”
 - People belong to organizations

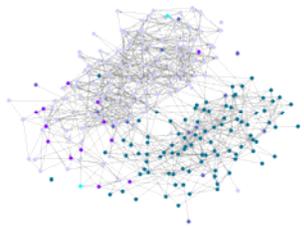


Network and attribute

Race and Friendship, Adolescent Health Study, School 9

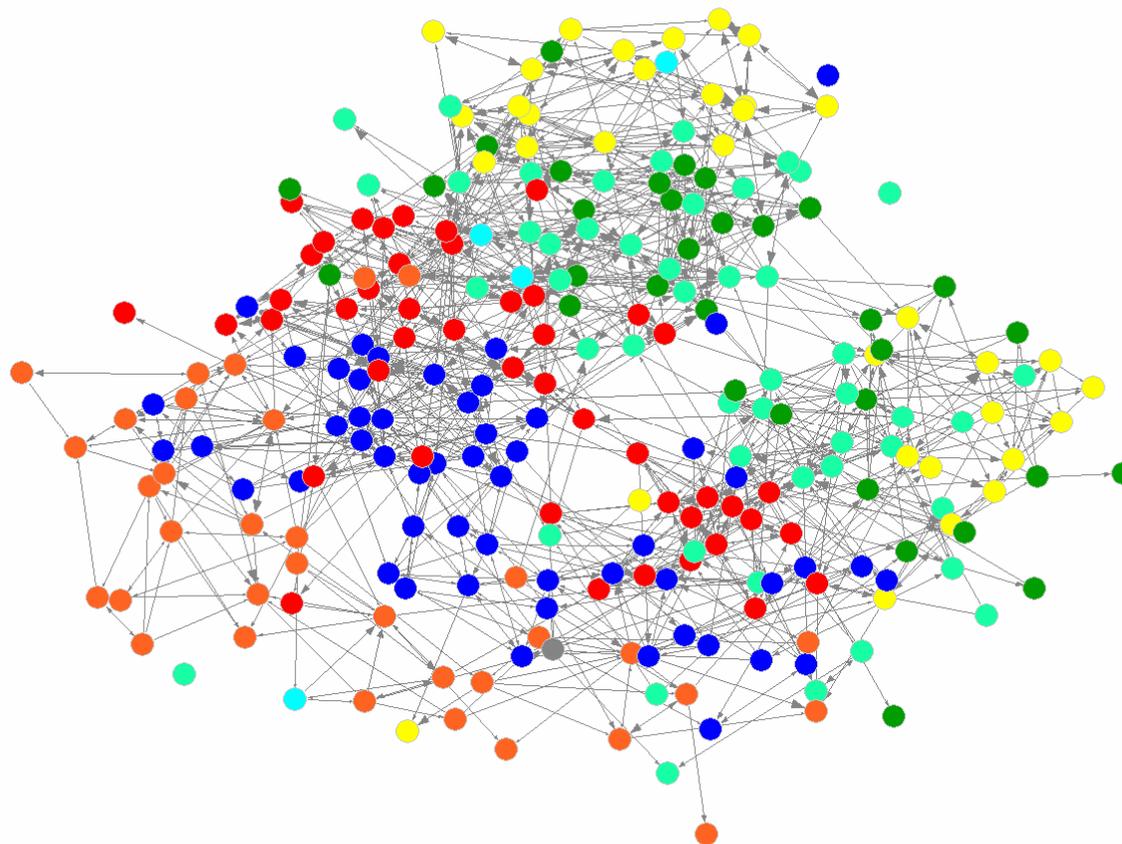


Drawn in Pajek using
Kameda-Kawai
Spring embedding

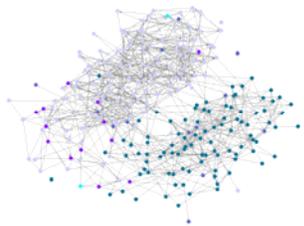


Network and attribute

Grade and Friendship, Adolescent Health Study, School 9

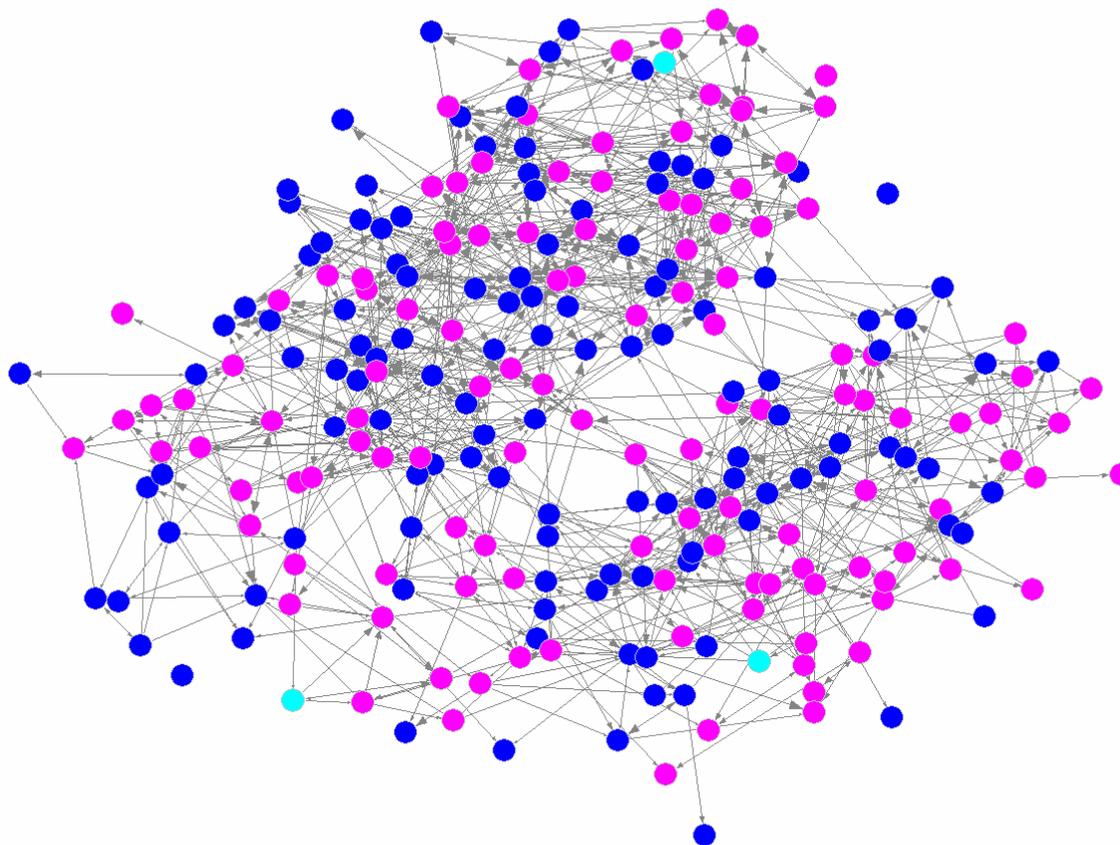


Drawn in Pajek using
Kameda-Kawai
Spring embedding

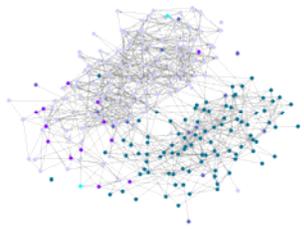


Network and attribute

Gender and Friendship, Adolescent Health Study, School 9



Drawn in Pajek using
Kameda-Kawai
Spring embedding



One mode and two mode networks

- A mode is a class of entities
- One mode = one set of entities
- Two mode = two different sets of entities